PVP20

Code No: **20CS4701A**

PVP SIDDHARTHA INSTITUTE OF TECHNOLOGY

(Autonomous)

IV B.Tech - I Semester Regular Examinations, DECEMBER-2023

DEEP LEARNING

Duration: 3 Hours **Max. Marks: 70**

Note: 1. This question paper contains two Parts A and B.
2. Part-A contains 5 short answer questions. Each Question carries 2Marks.
3. Part-B contains 5 essay questions with an internal choice from each unit. Each question carries 12 marks.
4. All parts of Question paper must be answered in one place.

Part - A					
			5 x 2 = 10 Marks		
			Blooms Level	**CO**	**Max. Marks**
1	a)	What are the types of machine learning?	**L2**	**CO 1**	**2M**
	b)	Explain the role of Autoencoders in deep learning.	**L2**	**CO 1**	**2M**
	c)	What is the purpose of pooling in CNN model?	**L2**	**CO 1**	**2M**
	d)	Define Computational graphs.	**L2**	**CO 1**	**2M**
	e)	Discuss any two real-time applications of deep learning in healthcare.	**L2**	**CO 1**	**2M**
Part –B					
			5 x 12 = 60 Marks		
			Blooms Level	**CO**	**Max. Marks**
UNIT-I					
2	(a)	Identify the differences between Feed forward and Feed backward Neural networks.	**L2**	**CO 1**	**6M**
	(b)	Explain Activation Functions with diagram and the properties it must hold in neural network model.	**L2**	**CO 1**	**6M**
(OR)					
3	(a)	Illustrate the Common Architectural Principles of Deep Networks.	**L2**	**CO 1**	**6M**
	(b)	Identify the significance of Hyperparameters in performance of the model.	**L2**	**CO 1**	**6M**
UNIT-II					
4	(a)	List and explain the principles of Restricted Boltzmann machine with an example.	**L4**	**CO 4**	**6M**
	(b)	Explain the difference between the discriminative and generative models.	**L2**	**CO 1**	**6M**
	(OR)				
5	(a)	Identify the benefits of using pre trained networks models.	**L2**	**CO 1**	**6M**
	(b)	Demonstrate how a situation like slow learning, becoming stuck in local minima can be handled in deep learning.	**L2**	**CO 2**	**6M**

UNIT-III					
6	(a)	Examine the convolution operation.	**L4**	**CO 4**	**6M**
	(b)	List and explain the various activation functions used in modeling of artificial neuron	**L4**	**CO 4**	**6M**
		(OR)			
7	(a)	Summarize the Basic Convolutional Neural Network Architecture	**L2**	**CO 1**	**6M**
	(b)	Examine the concept "What happens when the value of stride is high and low?"	**L4**	**CO 4**	**6M**
UNIT-IV					
8	(a)	Identify the difference between the Recurrent network and feedforward network?	**L3**	**CO 3**	**6M**
	(b)	Identify why vanishing gradient problem occurs in RNN?	**L3**	**CO 3**	**6M**
(OR)					
9	(a)	Construct two applications of Deep Recurrent Networks and list the phases.	**L3**	**CO 3**	**6M**
	(b)	Distinguish between LSTM and gated recurrent units.	**L4**	**CO 4**	**6M**
UNIT-V					
10	(a)	Identify the suitable activation function for spectrogram image classification is and defend your statement.	**L3**	**CO 3**	**6M**
	(b)	Model the phases of dataset preparation in sentiment analysis.	**L3**	**CO 3**	**6M**
(OR)					
11	(a)	List the applications of Deep learning in computer network management.	**L4**	**CO 4**	**6M**
	(b)	List the applications of Deep learning in Computer Vision?	**L4**	**CO 4**	**6M**

Course Coordinators

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